

54423 DREV

Work Order ID 52362

Tuesday, September 22, 2009 12:27:48 PM



Page 1

Item ID: D3391-021

Accept



Setup Start

Revision ID: H

Stop

Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

*PP mvr*Date: *09-9-22*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3391

Rev H

100

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

Cut extrusion to 46.52 +0.010 -0.020

Q.M 09-10-13

110

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend I

Memo

0.00

CNC Delta 100 Bender

Bend as per Dwg D3391 Using Bend Prog 3391021

DP 9-10-14

120

0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

*h2 6.875"
L2 13.1"**2/802/10/15**(X)**φ*

Work Order ID 52362

Tuesday, September 22, 2009 12:27:48 PM



Page 2

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Setup Start



Revision ID: H

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Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1 Memo 1-Machine as per Folio FA590 Rev. <u>F</u> & Dwg D3391 Rev. <u>H</u> Identify as D3391-1 2-Deburr	0.00 0.00				<u>1</u>	<u>0</u>		
140 QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00				<u>1</u>	<u>0</u>		
150 Mill Conv Conventional Milling Machine	CONVENTIONAL MILLING MACHINE Memo Drill X1 Aft cap as per Dwg D3391 .1875" dia	0.00 0.00				<u>1</u>	<u>0</u>		

G.A 09/10/20

G.A 09/10/20

G.A 09/10/20

Work Order ID 52362

Tuesday, September 22, 2009 12:27:48 PM



Page 3

Item ID: D3391-021

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Setup Start



Revision ID: H

Stop



Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC2- Inspect parts off machine FAI/FAIB

0.00

OK 09/10/21

QC

Memo

0.00

Quality Control

1 0

170

QC8- Inspect parts - second check

0.00

mw 09/10/21

QC

Memo

0.00

Quality Control

1 0

Work Order ID 52362

Tuesday, September 22, 2009 12:27:48 PM

Page 4

Item ID: D3391-021

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Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00

Required Date: 10/16/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size) (ONLY DRILL HOLES MARKED "A")								
	2-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step								
	3-Open tow cap holes to .208" as per Dwg D3391								
	4-Open Tow Ring hole to .640" as per Dwg D3391								
	5- open float bag holes 0.328" and counter sink as per dwg D3391								
	6-Deburr & Scribe Batch number Inside aft end.								
	7-Transfer drill D3391-021 with D3391-023								
190	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									

H 9/10/30

H 9/11/30

H 9/14/30

(H)

Work Order ID 52362

Tuesday, September 22, 2009 12:27:48 PM



Page 5

Item ID: D3391-021

Accept



Setup Start



Revision ID: H

Stop



Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	Chemical Conversion Coat per QSI005 4.1	0.00							
	HandFinish								
	Memo	0.00							
	Hand Finishing								
210	QC3- Inspect Part Finish	0.00							
	QC								
	Memo	0.00							
	Quality Control								
220		0.00							
	Skidtubes								
	Memo	0.00							
	Skidtubes								
	1-instal spacers as per dwg D3391 A/R Magnabond 6398 batch: <u>7112417</u> exp. date: <u>10/7/30</u> cure time 12hrs. as per QSI015 2- grind crossbolt flush 3-back drill crossbolt if necessary								

9-12-011 11/9/12/3

Work Order ID 52362

Tuesday, September 22, 2009 12:27:48 PM



Page 6

Item ID:	D3391-021	Accept		Setup	Start	
Revision ID:	H				Stop	
Item Name:	Fwd Tube Assembly					
Start Date:	9/23/2009	Start Qty:	1.00		Cust Item ID:	
Required Date:	10/16/2009	Req'd Qty:	1.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	=> 80212103						
240 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M112148 Memo START TIME: 10:55 OVEN TEMPERATURE: 200° FINISH TIME: 11:25	0.00 0.00	09-12-7						
250 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00	=> M 09112109						

Work Order ID 52362

Tuesday, September 22, 2009 12:27:48 PM



Page 7

Item ID: D3391-021

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Stop



Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
259		0.00	=7 HP 09/12/07			(X1)	Ø		
	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	**** install D3591-1 spacer as per DS19364 ****								
260	Identify as per dwg & Stock Location: _____	0.00	=5 HP 09/12/08			X1	Ø		
Packaging	Memo	0.00							
Packaging									
280	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

09/12/09
HP 09/12-9

Picklist Print.

Tuesday, September 22, 2009 12:27:48 PM

Page 1

Work Order ID: 52362



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D6013-047RevA		Manufactured	No			100	Each	63.0000	1.0000			

Skidtube Material

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
LG	63	
23935	6	
26547	57	

9/12/11

D3670-4-200RevA

Manufactured No



SPACER

260 Each 167.0000 4.0000



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	167	
46106	4	
47122	36	
48198	42	
48269	85	

9/12/11

Picklist Print

Tuesday, September 22, 2009 12:27:48 PM

Work Order ID: 52362



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3401-041RevB		Manufactured	No			260	Each	25.0000	1.0000			
Tow Cap Assembly												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	25	
36216	1	
41931	8	
46029	16	

x1 9/21/09 12/09

D3564-13RevD		Manufactured	No			260	Each	14.0000	1.0000			
Wearshoe												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP17	1	
50270	1	
Main Warehouse		
ST	13	
45409	3	
46495	10	

B51611

1 9/21/09 12/09

Picklist Print

Page 3

Tuesday, September 22, 2009 12:27:48 PM

Work Order ID: 52362



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3566-13RevC

Manufactured

No

260

Each

53.0000

1.0000



Gasket

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP

44

51606

44

Main Warehouse

ST

9

45717

1

50265

8

x1 21.8 09/12/07

AN960C10L

Purchased

No

260

Each

6,964.000

10.0000



washer

Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

100

103585

100

Main Warehouse

ST

6864

112116

1864

112612

5000

11112933

x10 21.8 09/12/07

Picklist Print

Page 4

Tuesday, September 22, 2009 12:27:48 PM

Work Order ID: 52362



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C4A 		Purchased	No			260	Each	2,076.000	10.0000			
BOLT												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

2076

112082

14

112314

140

112612

246

112720

1176

112724

500

(X10) 11 09/12/09

D3672-1RevB

Manufactured

No



Phenolic Washer

260

Each

1,186.000

4.0000



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

686

39275

19

42329

121

47628

546

Main Warehouse

ST117

500

51674

500

x4 11 09/12/09

AELS-1032-130

Purchased

No



INSERT

260

Each

0.0000

2.0000



111529 11 09/12/09

(12)

Tuesday, September 22, 2009 12:27:48 PM

Shop Packet Print

Page 4

Picklist Print

Page 5

Tuesday, September 22, 2009 12:27:48 PM

Work Order ID: 52362



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly



Start Date: 9/23/2009

Required Date: 10/16/2009

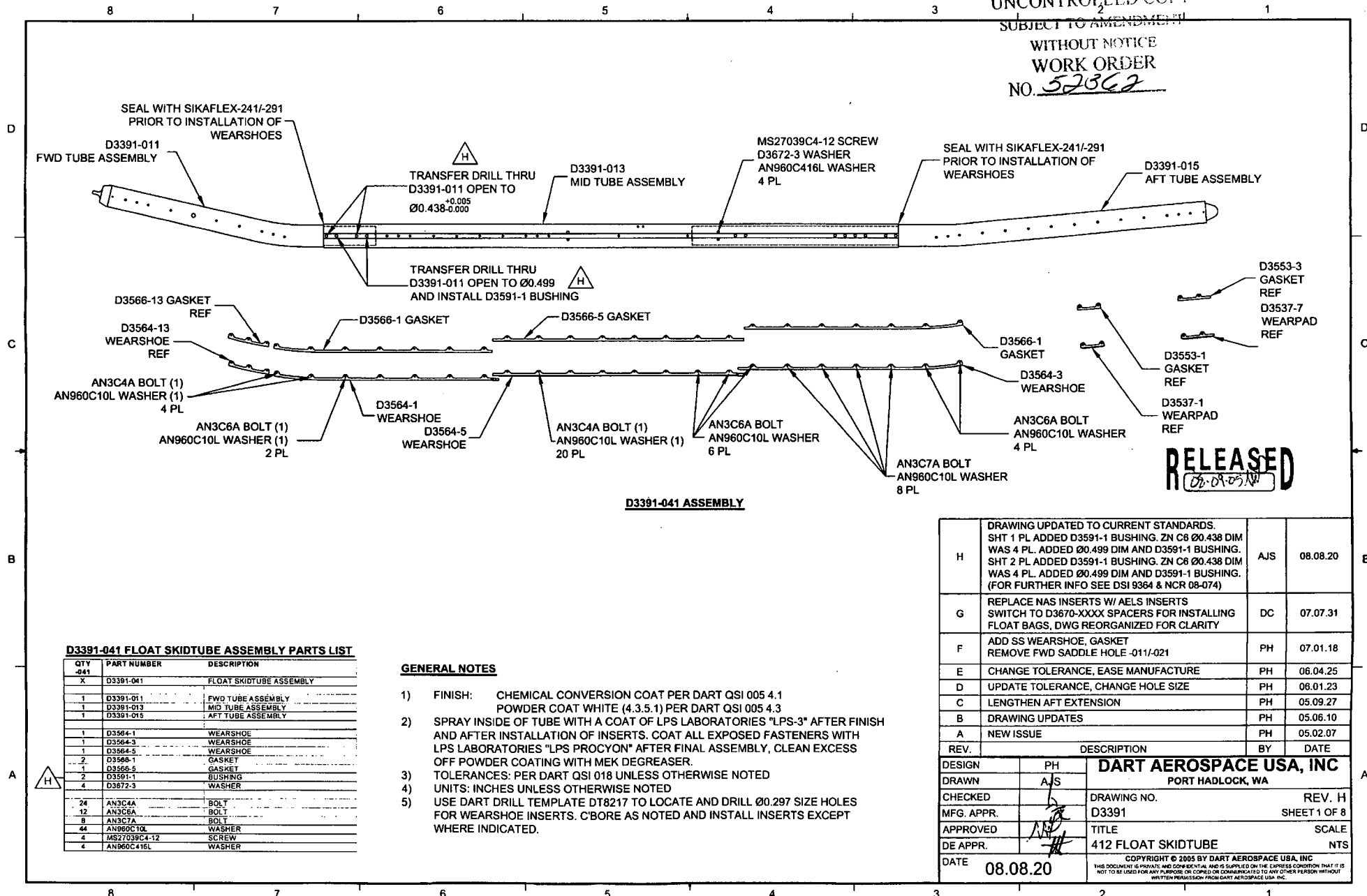
Comments:

Start Qty: 1.00

Required Qty: 1.00

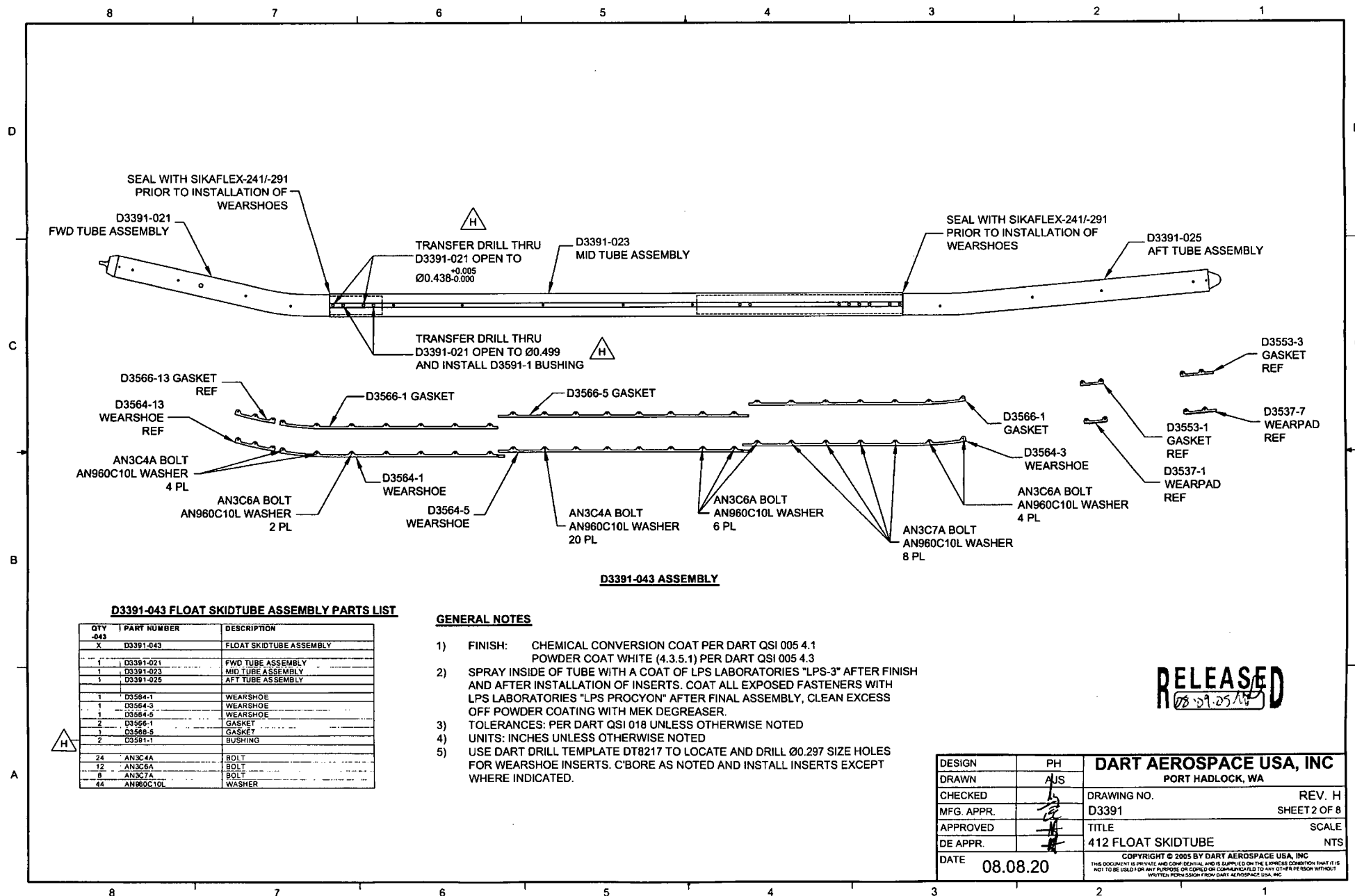
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AELS-1032-225		Purchased	No			260	Each	0.0000	10.0000			
						1110768	110912107			(y10)	d	
INSERT												

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 52062

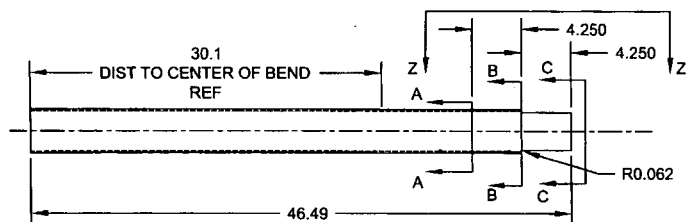


H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 $\varnothing 0.438$ DIM WAS 4 PL. ADDED $\varnothing 0.499$ DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 $\varnothing 0.438$ DIM WAS 4 PL. ADDED $\varnothing 0.499$ DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 1 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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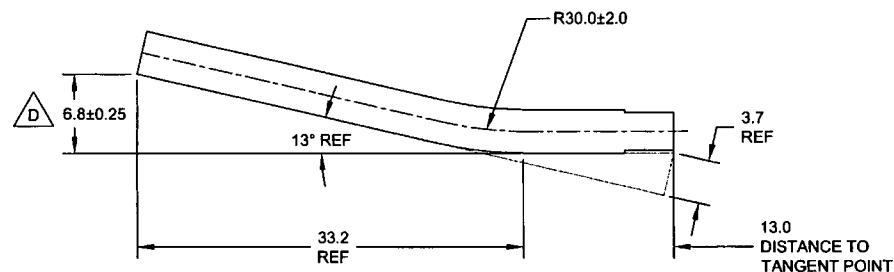
52362



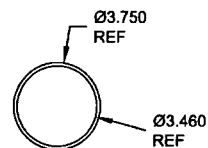
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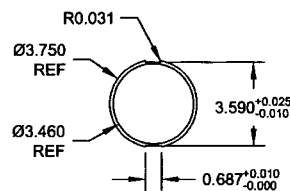
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



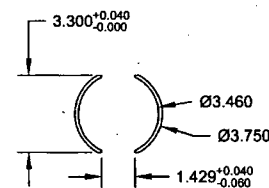
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



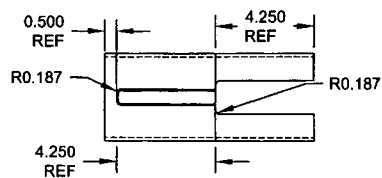
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SCALE 2X



SECTION B-B
SCALE 2X





SECTION C-C
SCALE 2X

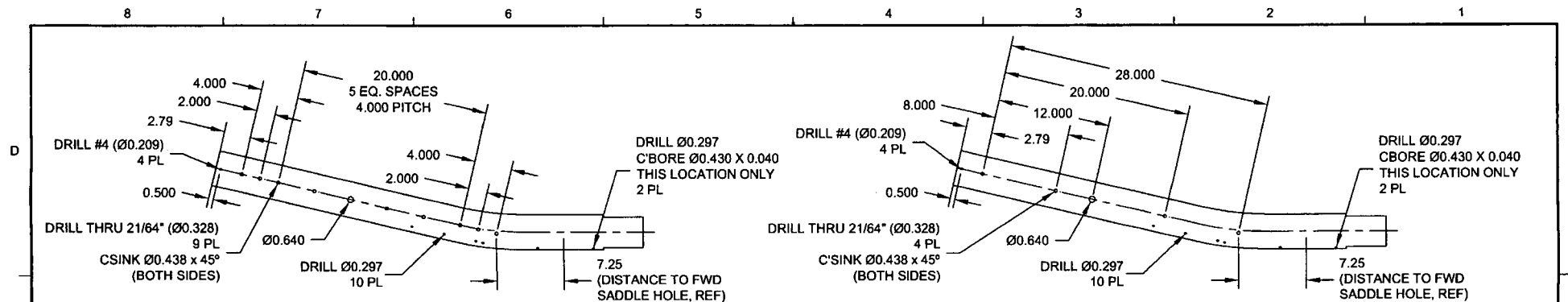


VIEW Z-Z
SCALE 2X

RELEASED
08-05-11

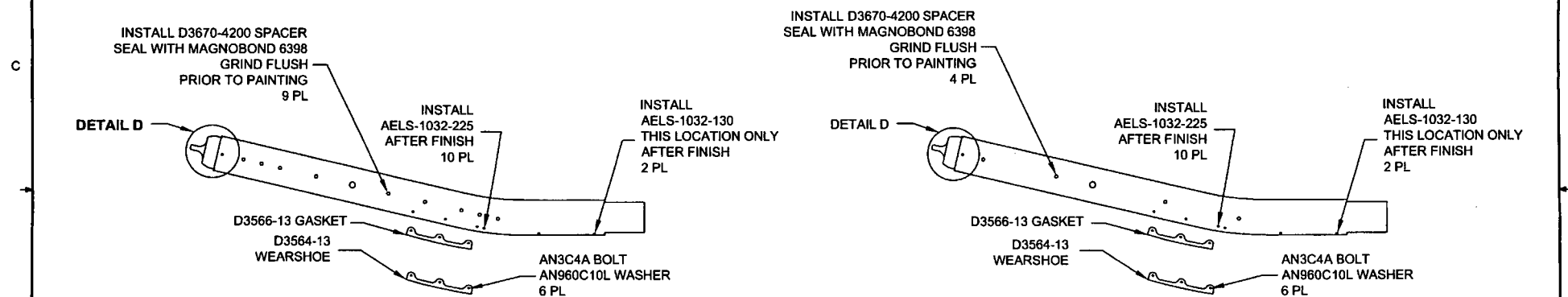
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 3 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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52362



D3391-011 DRILLING DETAIL

D3391-021 DRILLING DETAIL

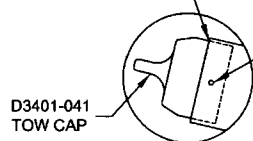




D3391-011 ASSEMBLY DETAIL

D3391-021 ASSEMBLY DETAIL

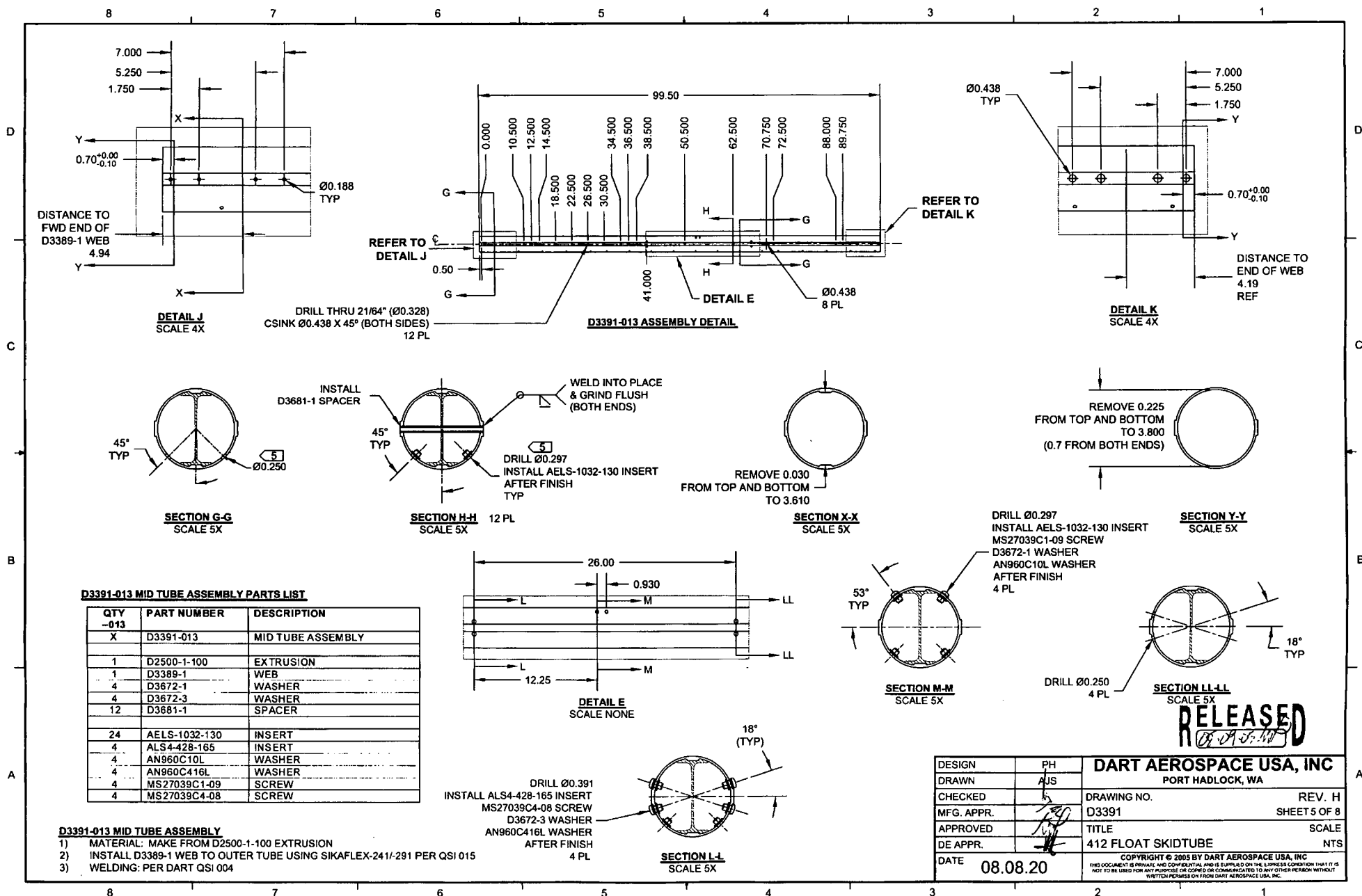
D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X	X	D3391-011	FWD TUBE ASSEMBLY
		D3391-021	FWD TUBE ASSEMBLY
1	1	D6013-047	FWD TUBE
1	1	D3401-041	TOW CAP
1	1	D3564-13	WEARSHOE
1	1	D3566-13	GASKET
9	4	D3670-4200	SPACER
4	4	D3672-1	WASHER
10	10	AN3C4A	BOLT
10	10	AN960C10L	WASHER
2	2	AELS-1032-130	INSERT
10	10	AELS-1032-225	INSERT

SEAL WITH
SIKAFLEX-241/-291D3401-041
TOW CAPAN3C4A BOLT
D3672-1 WASHER
AN960C10L WASHER
4 PLDETAIL D
SCALE 2XRELEASED
08-09-05-141

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 4 OF 8
APPROVED	AM	TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
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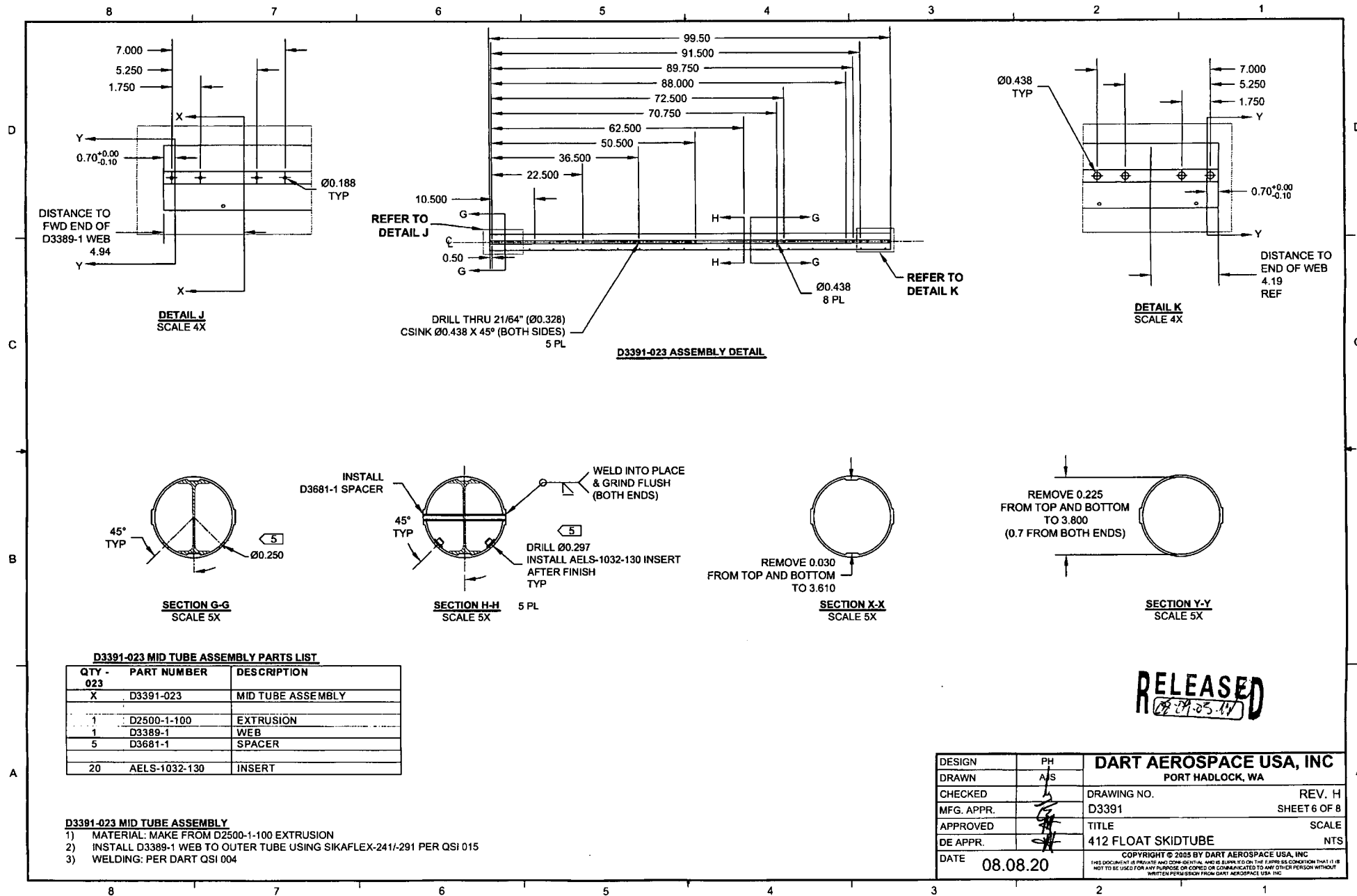
52362



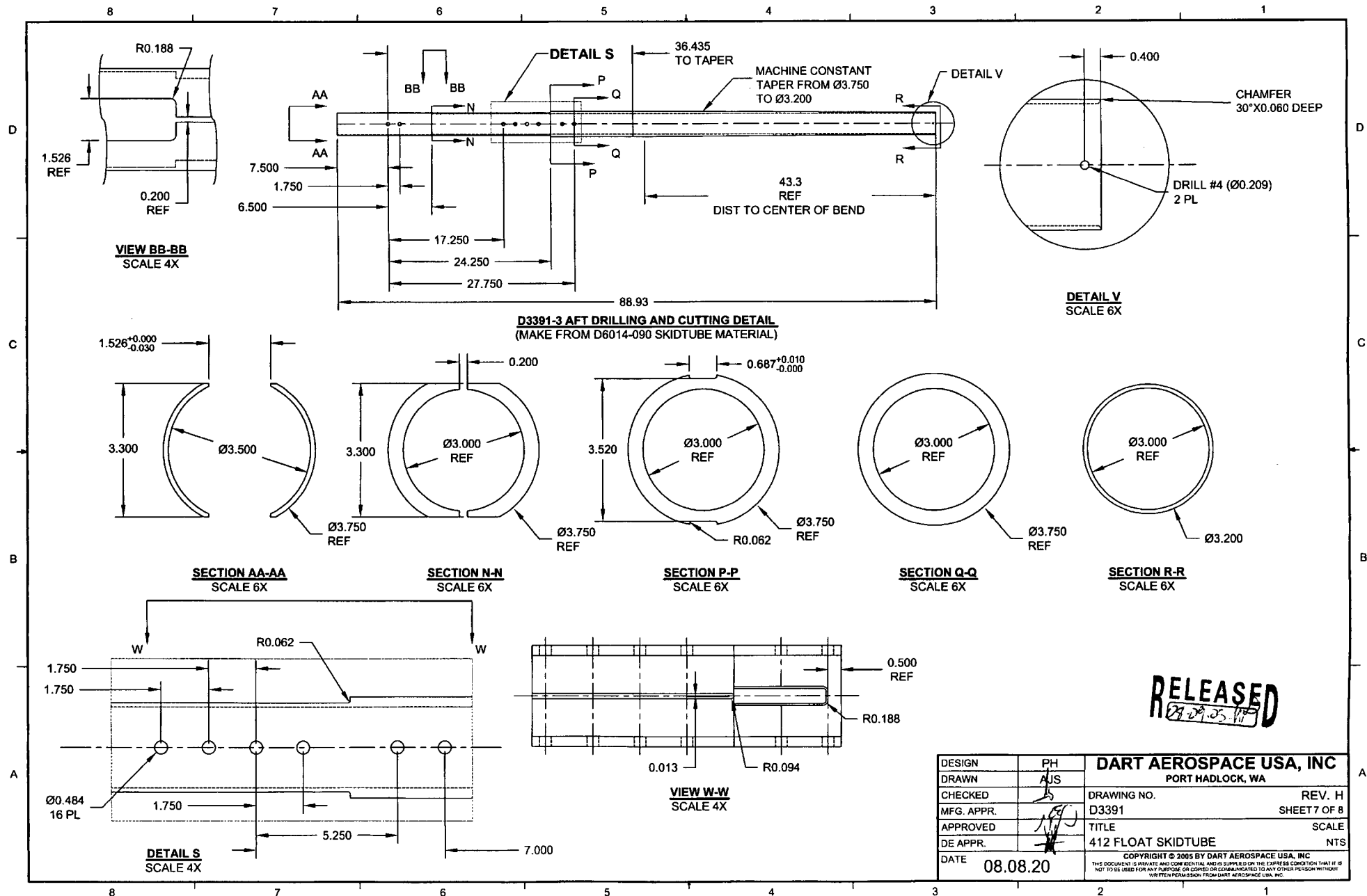
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DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 5 OF 8
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52362



52362



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